

**DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA**

INTERDEPARTMENT CORRESPONDENCE

FILE: NH-002-7(23) White
P. I. No.: 162390
Cleveland West Bypass

OFFICE: Engineering Services

DATE: January 5, 2006

FROM: Brian Summers, P.E., Project Review Engineer *RLW*

TO: Russell McMurry, P.E., District Engineer - Gainesville

SUBJECT: IMPLEMENTATION OF VALUE ENGINEERING STUDY ALTERNATIVES


Recommendations for implementation of Value Engineering Study Alternatives are indicated in the table below. Incorporate alternatives recommended for implementation to the extent reasonable in the design of the project.

ALT No.	Description	Savings PW & LCC	Implement	Comments
1	Construct a five-lane section of roadway throughout the project	-\$449,026 (cost increase)	No	Not consistent with current guidelines for a "Bypass" type project
2	Use a four-lane section with guardrail at 55 mph	\$92,685	No	Not consistent with current guidelines for a "Bypass" type project
5	Eliminate southbound access to U.S. 129	\$225,636	No	Does not meet driver expectations at the proposed median opening
6	Realign depressed median section between the area of the Environmental Justice Community and S.R. 115	Design Suggestion	No	Could possibly increase impacts to the Environmental Justice Community

ALT No.	Description	Savings PW & LCC	Implement	Comments
7	Realign the Bypass between S.R. 115 and U.S. 129/S.R. 115/S.R. 75 ALT	-\$4,122,708 (cost increase)	No	Would result in either additional Environmental impacts to Cox Creek or the need to acquire additional homes depending on where the new alignment would be
17	Realign the Bypass between CR 115/Jess Hunt Road/Claud Sims Road and U.S. 129/S.R. 115/S.R. 75 ALT	-\$13,951,421 (cost increase)	No	Would result in additional longitudinal Environmental impacts to Cox Creek

A meeting was held on January 5, 2006 to discuss the above recommendations. Jeffrey Nix with District 1 Design, and Ron Wishon of the Office of Engineering Services were in attendance.

The above reflects the consensus of this meeting.

Approved: 
David E. Studstill, P. E., Chief Engineer

Date: 1/9/06

BKS/REW

Attachments

c: Gus Shanine, FHWA
Don Attaway
Jeffrey Nix
Randy Hart
Sandy Moore
Mike Dover
Vince Wilson
Bill Ingalsbe
Kim Coley
Jonathan Cox
Jennifer Mathis
Lisa Myers

DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA

INTERDEPARTMENT CORRESPONDENCE

FILE NH-002-7(23), White County
P.I. No. 162390
Cleveland Bypass

OFFICE Gainesville

DATE November 14, 2005

FROM Luther D. Attaway, District Design Engineer

TO Brian Summers, P.E., State Project Review Engineer
Attention: Lisa Myers

SUBJECT **Response to VE Study**

The design for the Cleveland West Bypass which consists of a divided four-lane roadway from SR11/US129 south of Cleveland to SR75Alt/US129 northwest of Cleveland and a five-lane section from SR75Alt/US129 to SR75 north of Cleveland is proceeding in accordance with the approved project concept. This design provides a bypass roadway that will match future construction projects in the corridor from Gainesville to Cleveland. Partial access control will be established along the divided roadway portion of the new roadway, thereby preserving the tourist gateway atmosphere going into the Georgia mountain area.

Any major deviation in design will result in a tremendous loss in funds invested in man-hours used in preliminary engineering and maintaining the project development schedule.

Alternative 1 (Five-lane section throughout)

In addition to the additional costs associated with this alternative, this level of roadway does not meet the requirements of the approved concept. The speed reduction would not be consistent with the proposed four-lane system from Gainesville to north of Cleveland and possibly to the state line. The approved project concept provides increased mobility by limiting access along the project for the uncongested transport around the Historic town of Cleveland. Due to these points, we are in agreement with the VE Team that implementation of this alternative is not recommended.

Alternative 2 (4 ft inside shoulders with double faced guardrail)

For the minimal amount of cost to be saved by this design, the roadway does not conform to the design of the proposed construction adjoining this project at the southern termini. Future additional lanes would be expensive. Also, this type of construction, requiring guardrail along the median for the length of the project, does not provide the context sensitive approach that is currently demanded. Due to these considerations, we believe that this is not a viable alternative to implement.

Alternative 5 (Eliminate Southbound access to US129 South)

This alternative does not provide for all turning movements which were discussed as part of the project concept. The movement for southbound access has potential to be an important one. There are several businesses just north of the southern termini that generate truck traffic which would become a concern. If drivers decide to make a u-turn at unsignalized Hope Drive instead of approaching from the north by making the extremely tight turn at the current intersection of US 129 and SR 115 in Cleveland this could evolve into a safety issue. Considering the potential traffic and safety problems at this location, we feel that the additional benefits associated with these lanes would be cost effective.

Alternative 6 (Realignment between EJ community and SR 115)

The current alignment in this area consists of two curves of approximately 2 degrees each, separated by a 1,411 foot tangent. The length of this segment is approximately 3,940 feet which meets the geometric design guidelines for this project. Alignment such as this is not uncommon for a project on new location in this type of terrain. By using a flatter curve at the EJ area, the reverse curve situation cannot be eliminated unless projected across State Route 115. The flattened curve would create a greater encroachment into the EJ area and would only shorten the alignment by approximately 100 feet.

Alternative 7 (Straighter alignment between SR115 and US129 North)

This alternative would result in either a significant environmental impact to Cox Creek (approx. 1000') or the acquisition of approximately 10 additional homes depending on the revised alignment. Although this alternate would result in shortening the project nearly ¼ mi with cost savings estimated at ±\$4M, it does not appear to account for the additional stream impact and right of way costs which would be associated with this change. With the additional cost added back in on stream impact issues and the added right of way displacements, we feel that this would not be a justifiable change from the alignment as proposed.

Alternative 17 (Straighter alignment using viaduct)

This alternative results in a long longitudinal impact to Cox Creek that is proposed to be somewhat offset with the use of an extended bridge or viaduct. This would shorten the project approximately 1000 feet but would add an estimated ±\$13M to the cost of the project. Due to the additional cost and maintenance complexity of the viaduct we feel this is not an option. The use of two smaller bridges on an alignment more perpendicular at the stream crossings provides a more suitable and environmentally sensitive design.

Additional Comments

After review of our calculations, we feel that our calculated tonnage of Graded Aggregate Base was correct. The cost of approx. \$13.90 per ton was taken from the detailed estimate database. This results in approximately \$2.1M for GAB.

Please contact Don Attaway at 770-532-5522 if you have any questions.

LDA